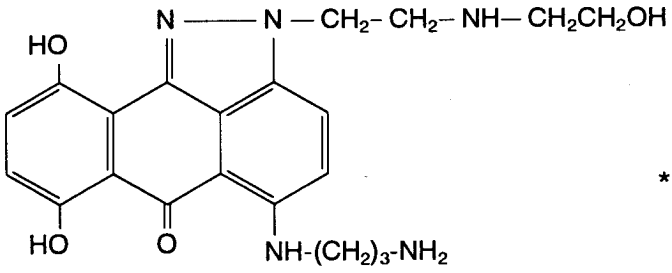
# PIROXANTRONE

## NSC - 349174




**Chemical Name:**
Anthra[1,9-*cd*]pyrazol-6(2*H*)-one, 5-[3-(aminopropyl)amino]-7,10-dihydroxy-2-[2-[(2-hydroxyethyl)amino]ethyl]-, dihydrochloride

**Other Names:**
Anthrapyrazole derivative; Oxantrazole

**CAS Registry Number:** 105118-12-5

**Molecular Formula:** $C_{21}H_{25}N_5O_4 \cdot 2HCl$ **M.W.:** 484.4

| **Approximate Solubility:** | (mg/mL) |
|---|---|
| $H_2O$ | > 11.20 |
| Buffer, pH4 | > 9.60 |
| Buffer, pH9 | > 11.50 |
| Ethanol | < 0.73 |

| | |
|---|---|
| DMA | 0.70 |
| DMSO | > 9.60 |
| $CHCl_3$ | < 0.77 |
| EtOAc | < 0.71 |
| t-BuOH | < 0.71 |

**Stability:**

**Bulk:**
Samples stored at 25 °C under both light and dark conditions at 50 °C in the dark for three months showed no significant degradation (HPLC).

**Solution:**
A solution containing 10.2 mg/mL in water showed approximately 5% degradation in 24 hours. The test sample exhibited < 10% degradation in 48 hours.

**Ultraviolet Absorption:**

($H_2O$)

| $\lambda_{max}$ | $\varepsilon$ |
|---|---|
| 254 ± 2nm | 10,358 ± 500 |
| 295 ± 2nm | 6,146 ± 400 |
| 318 ± 2nm | 6,889 ± 400 |
| 333 ± 2nm | 6,677 ± 400 |
| 406 ± 2nm | 4,827 ± 400 |
| 515 ± 2nm | 16,592 ± 600 |

**High Performance Liquid Chromatography:**

| | |
|---|---|
| **Column:** | Zorbax $C_8$, 250 x 4.6 mm i.d., 30 x 4.6 mm i.d. |
| **Mobile Phase:** | 5% $CH_3CN$/20% DMF /75% (0.2M ammonium acetate/L mobile phase, adjusted with acetic acid to pH 4.5.) |
| **Flow Rate:** | 1 mL/min |
| **Detection:** | UV at 254 nm |
| **Sample Preparation:** | 10 mg of sample diluted to 10 mL with internal standard solution. |
| **Internal Standard:** | 1.0 mg/mL benzamide in water |
| **Retention Volume:** | 11.14 mL (NSC-349174)<br>6.17 mL (I.S.) |